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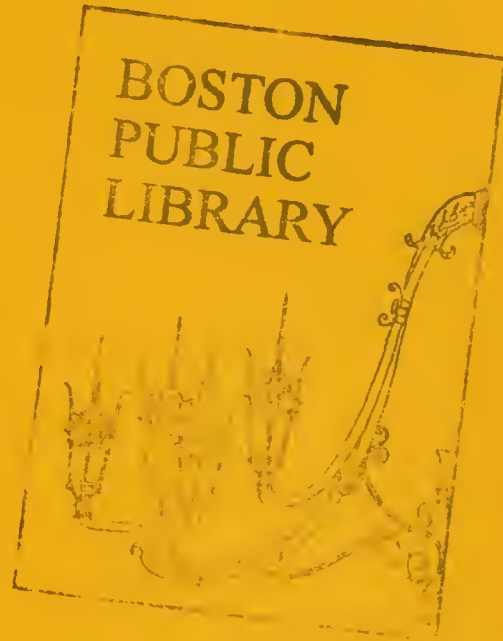
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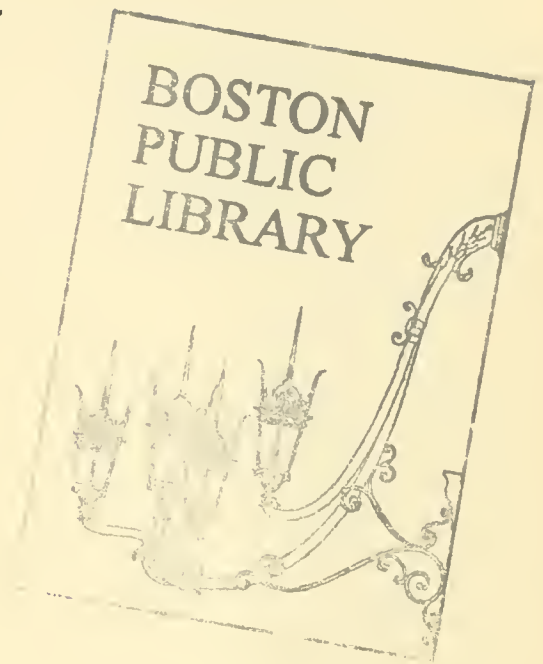
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planning department

BOSTON REDEVELOPMENT AUTHORITY



HALLET STREET STUDY - FINANCIAL ANALYSIS



Hallet Street Study - Financial Analysis

August 21, 1970

Boston Redevelopment Authority

Planning Department

DORCHESTER District Planning Program



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HOUSING ALTERNATIVE

INTRODUCTION

This alternative calls for 3,300 units of housing in medium rise towers on the northern section of the Hallet Street site. Efficiency one and two-bedroom units comprise most of the units:

| | | |
|----------------|---|------------------|
| 600 Efficiency | @ | 700 square feet |
| 1500 1 BR | @ | 900 square feet |
| 1000 2 BR | @ | 1100 square feet |
| 100 3 BR | @ | 1225 square feet |
| 100 4 BR | @ | 1350 square feet |
| <hr/> | | |
| 3300 units | | |

In the analysis, rents for the units, comparable to the present market, include one schedule which gives annual revenue of \$13,680,000:

Rental Schedule A

| | | |
|----------------|---|-------------|
| 600 Efficiency | @ | \$250/month |
| 1500 1 BR | @ | 330/month |
| 1000 2 BR | @ | 400/month |
| 100 3 BR | @ | 450/month |
| 100 4 BR | @ | 500/month |
| <hr/> | | |
| 3300 units | | |

Total Annual Revenue = \$13,680,000

A second rent schedule included in the analysis gives annual revenue of \$10,470,000:

Rental Schedule B

| | | |
|----------------|---|-------------|
| 600 Efficiency | @ | \$200/month |
| 1500 1 BR | @ | 250/month |
| 1000 2 BR | @ | 300/month |
| 100 3 BR | @ | 340/month |
| 100 4 BR | @ | 380/month |
| <hr/> | | |
| 3300 units | | |

Total Annual Revenue = \$10,470,000

ANALYSIS AND FINDINGS

The developer of the Hallet Street site will be considered a 121a developer -- both to solve many of the problems of land acquisition and to give the developer the imprimatur of public service which in his negotiations with the assessor might help him to obtain the favorable 15% "tax rate" assumed in this study.

The relatively high land cost -- over \$2.00/square foot -- and the extensive site preparation necessary (See Appendix, Section One, A) emphasize the need for high density development. Poor foundation conditions and resultant higher foundation costs further restrict development to medium and high-rise structure (See Appendix, Section One, A and Note 3).

The type of development envisioned and the rent schedules outlined above indicate that most public programs would be inappropriate, and therefore financial considerations for the development are analysed under prevailing market conditions.

The findings detailed in the Appendix, Section Two, indicate that this alternative has questionable economic feasibility. The high Rent Schedule A gives a competitive 12-15% rate of returns on \$25,200,000 (Appendix, Section Two, Example 1 and 2). However, at the location there is no demonstrated demand for apartments whose rents exceed those of the Presidential complex.

On the hand, under Rent Schedule B, in which rents are competitive with comparable "luxury" complexes, the 7-8% rate of return on \$33,800,000, even less expensive financing (Example 3), compares unfavorably with other development opportunities. The low return results not so much directly from the lower revenue as from the increased equity required because of the lower capitalized value (See Appendix, Section One, D). If an appraisal of the development resembled project cost more closely than capitalized value, the

rate of return would compare more favorably.

In conclusion, a development of 3300 housing units at Hallet Street seems an unlikely prospect, unless there is unusual demand for apartments on the site, or unless a developer charging lower rents receives a friendly appraisal.

APPENDIX

SECTION ONE -- COST AND FINANCIAL ASSUMPTIONS

A. Capital Costs

| | | |
|--------------------------------|-----------------|---------------------|
| Land Cost: | | \$4,000,000 (1) |
| Site Preparation: | \$1,000,000 (2) | |
| Construction Costs: | 66,390,000 (3) | |
| Landscaping: | 150,000 (4) | |
| Architects' Fee: | 3,320,000 (5) | |
| Building Permits: | 77,000 (6) | |
| Interest on Construction Loan: | 6,737,000 (7) | |
| Placement Fee for Loan | 1,165,000 (8) | |
| Legal Fees: | 1,165,000 | |
| Total Cost Improvements | | <u>\$80,004,000</u> |
| Total Investment | | \$84,004,000 |

B. — Operating Costs (9) \$ 2,300,000

Included maintenance, legal fees, labor, management, etc.

C. Property Taxes

Based on replacement value of \$84,004,000 and Boston's Tax rate of approximately \$160 per \$1000 valuation, annual property tax on the proposed development would be \$13,440,640 -- a figure nearly equal to estimated revenues.

However, under a Chapter 121A tax formula for Urban Redevelopment Corporations, a payment in lieu of taxes can be negotiated with the City, using a base figure for annual payment of \$10 per \$1000 valuation, plus 5% of gross revenue:

For Rent Schedule A: \$1,524,000

For Rent Schedule B: \$1,364,000

The City Assessor, negotiates taxes with any developer, whether or not he is operating under Chapter 121A. A negotiated total payment of 15% of revenue would be an optimistic but, attainable figure for a developer:

For Rent Schedule A: \$2,057,000

For Rent Schedule B: \$1,571,000

D. Mortgage and Equity

Replacement Value of Land and Improvements: \$84,004,000

Capitalized Value of Development: (10)

-- Rent Schedule A: \$83,952,000

-- Rent Schedule B: \$59,391,000

Permanent Mortgage: (11)

-- Rent Schedule A: \$58,766,000

-- Rent Schedule B: \$50,189,000

Equity:

-- Rent Schedule A: \$25,238,000

-- Rent Schedule B: \$33,815,000

Equity Ratio:

-- Rent Schedule A: 30%

-- Rent Schedule B: 40%

SECTION TWO -- INCOME AND CASH FLOW ESTIMATES

Illustrative Examples (12)

Example #1 -- Assumptions:

- Rent Schedule A: \$13,680,000 Revenue
- 15% "Property Tax" rate:
- 20 year Mortgage for \$58,766,000 at 9.5%

| | | |
|---------|--|--------------|
| YEAR 1: | Gross Income: | \$13,680,000 |
| | Operating Expenses and Property Tax Payment: | \$ 4,352,000 |
| | Debt Service: | \$ 5,974,000 |
| | -- Interest Payments: | \$ 5,569,000 |
| | -- Mortgage Amortization: | \$ 405,000 |
| | Depreciation: | \$ 4,200,000 |
| | After Tax Cash as Percentage of Equity: | 14% |

| | | |
|----------|---|--------------|
| YEAR 15: | Gross Income: | \$13,680,000 |
| | Operating Expense and Property Tax Payment: | \$ 4,352,000 |
| | Debt Service: | \$ 5,974,000 |
| | -- Interest Payments: | \$ 1,525,000 |
| | -- Mortgage Amortization: | \$ 4,200,000 |
| | After Tax Cash as Percentage of Equity: | 12% |

| | |
|---|--------------|
| YEAR 1: Gross Income: | \$13,680,000 |
| Operating Expenses and Property Tax Payment: | 4,352,000 |
| Debt Service: | 5,927,000 |
| -- Interest Payments | 5,571,000 |
| -- Mortgage Amortization | 356,000 |
| Depreciation: | 4,200,000 |

After Tax Cash as Percentage of Equity: 14.5%

| | |
|---|--------------|
| YEAR 15: Gross Income: | \$13,680,000 |
| Operating Expenses and Property Tax Payment: | 4,352,000 |
| Debt Service | 5,927,000 |
| -- Interest Payment: | 4,587,000 |
| -- Mortgage Amortization: | 1,340,000 |
| Depreciation: | 4,200,000 |

After Tax Cash as Percentage of Equity: 12.5%

| <u>YEAR</u> | <u>TAXABLE INCOME OR LOSS</u> | <u>AFTER TAX CASH</u> |
|-------------|-----------------------------------|-----------------------|
| 1 | - \$441,000 | \$3,565,000 |
| 2 | - 401,000 | 3,546,000 |
| 3 | - 357,000 | 3,525,000 |
| 4 | - 308,000 | 3,501,000 |
| 5 | - 255,000 | 3,476,000 |
| 6 | - 196,000 | 3,448,000 |
| 7 | - 131,000 | 3,417,000 |
| 8 | - 60,000 | 3,383,000 |
| 9 | 18,000 | 3,345,000 |
| 10 | 104,000 | 3,304,000 |
| 11 | 198,000 | 3,259,000 |
| 12 | 302,000 | 3,209,000 |
| 13 | 416,000 | 3,154,000 |
| 14 | 541,000 | 3,094,000 |
| 15 | 678,000 | 3,028,000 |

Example 2 -- Assumptions:

- Rent Schedule A: \$13,680,000 Revenue
- 15% "Property Tax" Rate
- 30-year Mortgage for \$58,766,000 at 9.5%

| <u>YEAR</u> | <u>TAXABLE INCOME OR LOSS</u> | <u>AFTER TAX CASH</u> |
|-------------|-----------------------------------|-----------------------|
| 1 | - \$443,000 | \$3,614,000 |
| 2 | - 408,000 | 3,596,000 |
| 3 | - 369,000 | 3,577,000 |
| 4 | - 326,000 | 3,558,000 |
| 5 | - 279,000 | 3,535,000 |
| 6 | - 228,000 | 3,509,000 |
| 7 | - 171,000 | 3,483,000 |
| 8 | - 109,000 | 3,453,000 |
| 9 | - 40,000 | 3,419,000 |
| 10 | 35,000 | 3,384,000 |
| 11 | 118,000 | 3,344,000 |
| 12 | 209,000 | 3,257,000 |
| 13 | 310,000 | 3,252,000 |
| 14 | 420,000 | 3,199,000 |
| 15 | 541,000 | 3,141,000 |

Example 3 -- Assumptions:

- Rent Schedule B: \$10,470,000 Revenue
- 15% Property Tax Rate
- 30-year Mortgage for \$59,391,000 at 8.75%

| | |
|--|--------------|
| Year 1: Gross Income: | \$10,470,000 |
| Operating Expenses and Property Tax Payment: | 3,870,000 |
| Debt Service: | 4,778,000 |
| -- Interest Payment: | 4,395,000 |
| -- Mortgage Amortization: | 383,000 |
| Depreciation: | 4,200,000 |

Net Income as Percentage of Total Investment: - 2.4%

After Tax Cash as Percentage of Equity: 8.2%

| | |
|---|--------------|
| Year 15: Gross Income: | \$10,470,000 |
| Operating Expenses and Property Tax Payment: | 3,870,000 |
| Debt Expenses: | 4,778,000 |
| -- Interest Payment: | 3,480,000 |
| -- Mortgage Amortization | 1,298,000 |
| Depreciation: | 4,200,000 |
| After Tax Cash as Percentage of Equity: | 6.9% |

| <u>YEAR</u> | <u>TAXABLE INCOME OR LOSS</u> | <u>AFTER TAX CASH</u> |
|-------------|-----------------------------------|-----------------------|
| 1 | - \$ 1,996,000 | \$2,779,000 |
| 2 | - 1,961,000 | 2,763,000 |
| 3 | - 1,923,000 | 2,744,000 |
| 4 | - 1,881,000 | 2,724,000 |
| 5 | - 1,836,000 | 2,702,000 |
| 6 | - 1,787,000 | 2,680,000 |
| 7 | - 1,733,000 | 2,653,000 |
| 8 | - 1,674,000 | 2,624,000 |
| 9 | - 1,609,000 | 2,595,000 |
| 10 | - 1,539,000 | 2,561,000 |
| 11 | - 1,463,000 | 2,523,000 |
| 12 | - 1,379,000 | 2,484,000 |
| 13 | - 1,288,000 | 2,440,000 |
| 14 | - 1,189,000 | 2,397,000 |
| 15 | - 1,081,000 | 2,340,000 |

NOTES:

(1) Based on figure of \$4,750,000 for entire parcel, pro-rated for area occupied by housing units.

(2) Itemized site preparation costs:

| | |
|---------------------|-----------|
| Business Relocation | \$120,000 |
| Demolition | \$110,000 |
| Fill | \$100,000 |
| Utilities | \$670,000 |

-- Reroute open culvert: \$300,000

-- Water Lines: \$150,000

-- Sanitary Sewer Lines: \$ 70,000

-- Roads and Access: \$100,000

-- Utilities with site: \$ 50,000

Site Preparation Totals: \$1,000,000

| | | | |
|--------------------|---|--------------|----------------|
| (3) 600 Efficiency | @ | 700 sq. ft. | 420,000 |
| 1500 1 BR | @ | 900 sq. ft. | 1,350,000 |
| 1000 2 BR | @ | 1100 sq. ft. | 1,100,000 |
| 100 3 BR | @ | 1225 sq. ft. | 123,000 |
| 100 4 BR | @ | 1350 sq. ft. | <u>135,000</u> |

Apartment Area: 3,128,000 Sq. ft.

Plus 10% Common Area: 313,000

TOTAL AREA: 3,441,000 Sq. ft.

Building Cost: 3,441,000 sq. ft. @ 17.50/sq. ft. = ²⁹ \$59,390,000

Total Area: 3,441,000 Sq. ft.

Foundation Area @ 10-12 stories: 350,000 Sq. ft.

Extra Foundation Cost @ \$20/sq.ft. of Foundation: \$7,000,000
Building Cost: \$59,390,000
Extra Foundation Cost: \$ 7,000,000
Total Construction Cost: \$66,390,000

- (4) Architects' Fees figured at 5% of construction and landscaping.
- (5) Building Permits issued at \$5/\$1,000 for first \$1,000,000; \$2.50/\$1,000 for next \$4,000,000; and \$1/\$1,000 for all cost above \$5,000,000.
- (6) Interest on construction loan figured at 9.5% of project cost.
- (7) Additional placement fee on loan figured at 1.5% of project cost.
- (8) Legal fees figured at 1.5% of project cost.
- (9) Operating expenses computed at \$0.75/Sq. ft. of gross area.
- (10) Capitalized value computed at capitalization rate of 11%, using income after operating expenses and property taxes.
- (11) Permanent mortgage for 70% of coverage of replacement value and capitalized value.
- (12) All illustrative examples assume the following:
 - 48% Federal Income Tax Bracket
 - 3.5% Straight Line Depreciation, taken at 150% per year.
 - Year one is first year of full operation; construction and rent-up periods have already occurred.

RECREATION - OFFICE - HOUSING ALTERNATIVE

INTRODUCTION

This alternative calls for a public recreation facility, two million square feet of office space, and 900 units of housing. Both the office space and housing units will be contained in tower structures on the northern section of the site. Efficiency, one, and two-bedroom units would comprise most of the housing:

200 efficiency @ 700 sq. ft.

375 1 BR @ 900 sq. ft.

275 2 BR @ 1100 sq. ft.

25 3 BR @ 1210 sq. ft.

25 4 BR @ 1350 sq. ft.

900 units

For purposes of analysis, rents for the housing, comparable to the present market, will result in total annual revenue of \$3,855,000:

Rent Schedule A

200 efficiency @ \$250/month

375 1 BR @ \$330/month

275 2 BR @ \$400/month

25 3 BR @ \$450/month

25 4 BR @ \$490/month

900 units Total Revenue: \$3,855,000

A second schedule of lower rents will result in total annual revenue of \$2,813,000:

Rent Schedule B

| | | |
|----------------|---|-------------|
| 200 efficiency | @ | \$200/month |
| 375 1 BR | @ | \$250/month |
| 275 2 BR | @ | \$300/month |
| 25 3 BR | @ | \$340/month |
| <u>25</u> 4 BR | @ | \$380/month |

900 units Total Revenue: \$2,813,000

Office rents of \$6.50/sq. ft./year, also comparable to the present market, will result in total annual revenue of \$13,000,000.

Higher rents of \$7.50/year will result in total annual revenue of \$15,000,000.

ANALYSIS AND FINDINGS

Any developer of the Hallet Street site under this alternative will be considered a 121A developer in this report - both to eliminate problems of land acquisition and to give the developer the imprimatur of public service which in his negotiations with the Assessor might assist him in obtaining the favorable 15% property tax rate assumed in the study.

The type of development envisioned and the targeted market indicate that most public assistance programs would be inappropriate. Therefore, the report analyzes feasibility with financial terms determined by prevailing market conditions.

The findings of the study are detailed in the Appendix. Briefly, the office space appears to produce adequate return at marketable rents:

- (a) 14-17% annual return on \$20,000,000 Equity at \$6.50/sq. ft. annual rent
- (b) 23-27% annual return on \$14,500,000 Equity at \$7.50/sq. ft. annual rent

(See Appendix, Section Three, D, and Section Four)

If the \$7.50/sq. ft. annual rent proves marketable, the City might gain additional benefits by raising the tax rate to 20%. With such a change, the annual tax revenue to the City from the office space would increase from \$2,225,000 to \$3,000,000, while the return on the development would still be high enough to make it an attractive investment.

The housing units suggested as part of this alternative, however, suffer from the same problem as the 3,300 units proposed in the Housing Alternative. Under Rent Schedule A, the 14-17% annual return on \$5,900,000 Equity is attractive, (see Appendix, Section One, D, and Section Two, Examples 1 and 2), but the high rents may make the units unmarketable. Under Rent Schedule B, with lower rents, the 6-7.5% annual return on \$8,500,000 Equity makes the investment relatively unattractive in the present market (see Appendix, Section Two, Example 3).

Again, the low return is caused more by the increased equity resulting from the lower capitalized value and mortgage than directly by the lower revenue. Therefore, an appraisal closer to project cost than capitalized value at 11% would increase feasibility.

The high return of the office space at \$7.50/sq. ft. annual rent provides another solution. A joint development including both the office space and the housing units, with a \$7.50/sq. ft. annual rent for the office space and Rental Schedule B for the housing, gives the following return:

| | | |
|----------------|----------------|--------------|
| <u>Year 1</u> | Equity | \$24,421,000 |
| | After Tax Cash | 4,621,000 |
| | Rate of Return | 19% |
| <u>Year 15</u> | Equity | 24,241,000 |
| | After Tax Cash | 3,970,000 |
| | Rate of Return | 16% |

Such a return makes joint development a very attractive investment opportunity. The rate of return would remain competitive even with decreases in office or housing rents or a slight increase in the City's tax share.

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APPENDIX

Section One - Cost and Mortgage Assumptions for Housing .

A. Capital Costs

| | | |
|-----------------------------------|------------|--------------|
| Land Cost (1) | | \$ 1,000,000 |
| Site Preparation (2) | \$ 300,000 | |
| Construction Costs (3) | 17,893,000 | |
| Landscaping | 50,000 | |
| Architect's Fees (4) | 1,900,000 | |
| Building Permits (5) | 27,000 | |
| Interest on Construction Loan (6) | 1,690,000 | |
| Placement Fee on Loan (7) | 210,000 | |
| Legal Fees (8) | 210,000 | |
| Total Cost Improvements | | \$22,280,000 |
| Total Investment | | \$23,280,000 |

B. Operating Costs

| | |
|---|------------|
| Expenses (9) (includes maintenance, legal fees, labor, management, etc.) | \$ 614,000 |
|---|------------|

C. Property Taxes

| | |
|--|-----------|
| Normal Tax Payment (10) | 3,508,000 |
| Payment in Lieu of Taxes under Chapter 121A (11) | |
| --Rent Schedule A | 578,000 |
| --Rent Schedule B | 422,000 |

D. Mortgages and Equity

| | |
|--|--------------|
| Replacement Value of Land and Improvements | \$23,280,000 |
|--|--------------|

Capitalized Value of Development (12)

| | |
|-------------------|--------------|
| --Rent Schedule A | \$23,965,000 |
|-------------------|--------------|

| | |
|-------------------|------------|
| --Rent Schedule B | 16,317,000 |
|-------------------|------------|

Permanent Mortgage (13)

| | |
|-------------------|------------|
| --Rent Schedule A | 16,030,000 |
|-------------------|------------|

| | |
|-------------------|------------|
| --Rent Schedule B | 13,385,000 |
|-------------------|------------|

Equity

| | |
|-------------------|-----------|
| --Rent Schedule A | 6,250,000 |
|-------------------|-----------|

| | |
|-------------------|-----------|
| --Rent Schedule B | 9,895,000 |
|-------------------|-----------|

Equity Ratio

| | |
|-------------------|-----|
| --Rent Schedule A | 27% |
|-------------------|-----|

| | |
|-------------------|-----|
| --Rent Schedule B | 39% |
|-------------------|-----|

Section Two - Income and Cash Flow Estimates for Housing (14)

Illustrative Examples

Example #1 - Assumptions

--Rent Schedule A, \$3,855,000 Revenue

--15% Property Tax Rate

--20-year Mortgage at 9.5%

Year 1

| | |
|---|-------------|
| Gross Income | \$3,855,000 |
| Operating Expenses and Property Tax Payment | 1,922,000 |
| Debt Service | 1,626,000 |
| --Interest Payment | 1,518,000 |
| --Mortgage Amortization | 110,000 |
| Depreciation | 1,099,000 |
| After Tax Cash as Percentage of Equity | 16% |

Year 15

| | |
|---|-------------|
| Gross Income | \$3,855,000 |
| Operating Expenses and Property Tax Payment | 1,922,000 |
| Debt Service | 1,626,000 |
| --Interest Payment | 1,211,000 |
| --Mortgage Amortization | 415,000 |
| Depreciation | 1,099,000 |
| After Tax Cash as Percentage of Equity | 14% |

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 1 | \$ 48,000 | \$1,013,000 |
| 2 | 59,000 | 1,008,000 |
| 3 | 71,000 | 1,002,000 |
| 4 | 85,000 | 996,000 |
| 5 | 99,000 | 989,000 |
| 6 | 115,000 | 981,000 |
| 7 | 133,000 | 773,000 |
| 8 | 152,000 | 964,000 |
| 9 | 173,000 | 953,000 |
| 10 | 197,000 | 942,000 |
| 11 | 222,000 | 930,000 |
| 12 | 251,000 | 916,000 |
| 13 | 282,000 | 901,000 |
| 14 | 316,000 | 885,000 |
| 15 | 353,000 | 867,000 |

Example #2 - Assumptions

--Rent Schedule A, \$3,855,000 Revenue

--15% Property Tax Rate

--30-year Mortgage at 9.5%

Year 1

| | |
|-------------------------------------|-------------|
| Gross Income | \$3,855,000 |
| Operating Expenses and Property Tax | 1,192,000 |
| Debt Service | 1,613,000 |
| --Interest Payment | 1,249,000 |
| --Mortgage Amortization | 365,000 |

Depreciation \$1,099,000

After Tax Cash as Percentage of Equity 14.5%

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 1 | \$ 48,000 | \$1,026,000 |
| 2 | 57,000 | 1,022,000 |
| 3 | 68,000 | 1,017,000 |
| 4 | 80,000 | 1,011,000 |
| 5 | 92,000 | 1,005,000 |
| 6 | 107,000 | 998,000 |
| 7 | 122,000 | 991,000 |
| 8 | 139,000 | 983,000 |
| 9 | 158,000 | 974,000 |
| 10 | 178,000 | 964,000 |
| 11 | 201,000 | 953,000 |
| 12 | 225,000 | 941,000 |
| 13 | 253,000 | 928,000 |
| 14 | 283,000 | 914,000 |
| 15 | 316,000 | 898,000 |

Example #3 - Assumptions

--Rent Schedule B, \$2,813,000 Revenue

--15% Property Tax Rate

--30-year Mortgage at 8.75%

Year 1

| | |
|--|-------------|
| Gross Income | \$2,813,000 |
| Operating Expenses and Property Tax | 1,036,000 |
| Debt Service | 1,268,000 |
| --Interest Payment | 1,166,000 |
| --Mortgage Amortization | 102,000 |
| Depreciation | 1,099,000 |
| After Tax Cash as Percentage of Equity | 7.5% |

Year 15

| | |
|--|-------------|
| Gross Income | \$2,813,000 |
| Operating Expenses and Property Tax | 1,036,000 |
| Debt Service | 1,268,000 |
| --Interest Payment | 923,000 |
| --Mortgage Amortization | 344,000 |
| Depreciation | 1,099,000 |
| After Tax Cash as Percentage of Equity | 6.3% |

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 1 | -\$488,000 | \$743,000 |
| 2 | - 478,000 | 739,000 |
| 3 | - 468,000 | 734,000 |
| 4 | - 457,000 | 729,000 |
| 5 | - 445,000 | 723,000 |
| 6 | - 432,000 | 717,000 |
| 7 | - 418,000 | 710,000 |

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 8 | -\$402,000 | \$702,000 |
| 9 | - 385,000 | 694,000 |
| 10 | - 367,000 | 685,000 |
| 11 | - 346,000 | 675,000 |
| 12 | - 324,000 | 665,000 |
| 13 | - 300,000 | 653,000 |
| 14 | - 274,000 | 641,000 |
| 15 | - 245,000 | 627,000 |

Section Three - Cost and Mortgage Assumptions for Office Space

A. Capital Costs

| | | |
|-------------------------------------|------------|--------------|
| Land Acquisition | | \$ 3,000,000 |
| Site Preparation (15) | \$ 700,000 | |
| Construction Cost (16) | 58,000,000 | |
| Landscaping | 100,000 | |
| Architect's Fees (17) | 2,900,000 | |
| Building Permits (18) | 68,000 | |
| Interest on Construction Loans (19) | 5,870,000 | |
| Placement Fee on Loan (20) | 926,000 | |
| Legal Fees (21) | 926,000 | |
| Total Cost Improvements | | \$69,490,000 |
| Total Investment | | \$72,490,000 |

B. Operating Costs

| | |
|---|--------------|
| Expenses (22) | |
| --includes maintenance, labor, management, etc. | \$ 2,400,000 |

C. Property Taxes

| | |
|--|--------------|
| Normal Property Taxes (23) | \$11,598,000 |
| Payment in lieu of taxes under Chapter 121A (24) | |
| --At \$6.50/sq. ft. annual rent | 1,950,000 |
| --At \$7.50/sq. ft. annual rent | 2,250,000 |

D. Mortgage and Equity

| | |
|-------------------|--------------|
| Replacement Value | \$72,490,000 |
|-------------------|--------------|

Capitalized Value (25)

| | |
|---------------------------------|------------|
| --At \$6.50/sq. ft. annual rent | 77,850,000 |
|---------------------------------|------------|

| | |
|---------------------------------|------------|
| --At \$7.50/sq. ft. annual rent | 93,150,000 |
|---------------------------------|------------|

Permanent Mortgage (26)

| | |
|---------------------------------|------------|
| --At \$6.50/sq. ft. annual rent | 52,619,000 |
|---------------------------------|------------|

| | |
|---------------------------------|------------|
| --At \$7.50/sq. ft. annual rent | 57,974,000 |
|---------------------------------|------------|

Equity

| | |
|---------------------------------|------------|
| --At \$6.50/sq. ft. annual rent | 19,871,000 |
|---------------------------------|------------|

| | |
|---------------------------------|------------|
| --At \$7.50/sq. ft. annual rent | 14,516,000 |
|---------------------------------|------------|

Equity Ratio

| | |
|---------------------------------|-----|
| --At \$6.50/sq. ft. annual rent | 27% |
|---------------------------------|-----|

| | |
|---------------------------------|-----|
| --At \$7.50/sq. ft. annual rent | 20% |
|---------------------------------|-----|

Section Four - Income and Cash Flow Estimates for Office Space (27)

Illustrative Examples

Example #1 Assumptions

--\$6.50/sq. ft. annual rent

--15% Property Tax Rate

--20-year mortgage

Year 1

| | |
|--|--------------|
| Gross Income | \$13,000,000 |
| Operating Expenses and Property Tax | 4,350,000 |
| Debt Service | 5,376,000 |
| --Interest Payments | 5,012,000 |
| --Mortgage Amortization | 365,000 |
| Depreciation | 3,648,000 |
| After Tax Cash as Percentage of Equity | 16.5% |

Year 15

| | |
|--|--------------|
| Gross Income | \$13,000,000 |
| Operating Expenses and Property Tax | 4,350,000 |
| Debt Service | 5,376,000 |
| --Interest Payment | 4,004,000 |
| --Mortgage Amortization | 1,372,000 |
| Depreciation | 3,648,000 |
| After Tax Cash as Percentage of Equity | 14% |

| | |
|--|--------------|
| --Interest Payment | \$ 5,492,000 |
| --Mortgage Amortization | 400,000 |
| Depreciation | 3,648,000 |
| After Tax Cash as Percentage of Equity | 27% |
| <u>Year 15</u> | |
| Gross Income | \$15,000,000 |
| Operating Expenses and Property Tax | 4,650,000 |
| Debt Service | 5,892,000 |
| --Interest Payment | 4,388,000 |
| --Mortgage Amortization | 6,504,000 |
| Depreciation | 3,648,000 |
| After Tax Cash as Percentage of Equity | 23% |

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 1 | \$1,210,000 | \$3,878,000 |
| 2 | 1,249,000 | 3,858,000 |
| 3 | 1,293,000 | 3,838,000 |
| 4 | 1,341,000 | 3,814,000 |
| 5 | 1,394,000 | 3,789,000 |
| 6 | 1,452,000 | 3,761,000 |
| 7 | 1,515,000 | 3,731,000 |
| 8 | 1,585,000 | 3,697,000 |
| 9 | 1,662,000 | 3,660,000 |
| 10 | 1,747,000 | 3,620,000 |
| 11 | 1,840,000 | 3,575,000 |

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 1 | -\$ 10,000 | \$3,274,000 |
| 2 | 76,000 | 3,261,000 |
| 3 | 66,000 | 3,242,000 |
| 4 | 110,000 | 3,221,000 |
| 5 | 158,000 | 3,198,000 |
| 6 | 211,000 | 3,172,000 |
| 7 | 269,000 | 3,144,000 |
| 8 | 333,000 | 3,114,000 |
| 9 | 403,000 | 3,080,000 |
| 10 | 480,000 | 3,043,000 |
| 11 | 565,000 | 3,002,000 |
| 12 | 659,000 | 2,957,000 |
| 13 | 761,000 | 2,908,000 |
| 14 | 874,000 | 2,854,000 |
| 15 | 998,000 | 2,795,000 |

Example #2 - Assumptions

--\$7.50/sq. ft. annual rent

--15% Property Tax Rate

--20-year mortgage

Year 1

| | |
|-------------------------------------|--------------|
| Gross Income | \$15,000,000 |
| Operating Expenses and Property Tax | 4,650,000 |
| Debt Service | 5,892,000 |

| <u>Year</u> | <u>Taxable Income or Loss</u> | <u>After Tax Cash</u> |
|-------------|-----------------------------------|---------------------------|
| 12 | \$1,942,000 | \$3,526,000 |
| 13 | 2,054,000 | 3,472,000 |
| 14 | 2,178,000 ,, | 3,413,000 |
| 15 | 2,314,000 | 3,347,000 |

NOTES

- (1) Land cost prorated for area, based on appraised value of \$5,700,000 for entire site.
- (2) Site preparation prorated for area, based on estimated \$1,000,000 total. For itemization of site preparation costs, see Housing Alternative, Note (2).
- (3)

| | | |
|----------------------|----------------|-----------------------|
| 200 Efficiency | @ 700 sq. ft. | 140,000 sq. ft. |
| 375 1 BR | @ 900 sq. ft. | 338,000 sq. ft. |
| 275 2 BR | @ 1100 sq. ft. | 303,000 sq. ft. |
| 25 3 BR | @ 1225 sq. ft. | 31,000 sq. ft. |
| 25 4 BR | @ 1350 sq. ft. | <u>34,000 sq. ft.</u> |
| Apartment Area | | 846,000 sq. ft. |
| Plus 10% Common Area | | <u>85,000 sq. ft.</u> |
| Total Area | | 931,000 sq. ft. |

Building Cost 931,000 sq. ft. @ \$17.50/sq. ft. = \$16,293,000

Foundation Area @ 10-12 stories = 80,000 sq. ft.

Extra Foundation Cost = 80,000 sq. ft. @ \$20/sq. ft. = \$1,600,000

| | |
|-------------------------|------------------|
| Building Cost | \$16,293,000 |
| Extra Foundation Cost | <u>1,600,000</u> |
| Total Construction Cost | 17,893,000 |

See also Housing Alternative, Note (3)

- (4) See Housing Alternative, Note (4).
- (5) See Housing Alternative, Note (5).
- (6) See Housing Alternative, Note (6).
- (7) See Housing Alternative, Note (7).
- (8) See Housing Alternative, Note (8).

- (9) See Housing Alternative, Note (9).
- (10) Based on 100% Appraisal and payment of \$160 per \$1,000 of valuation.
- (11) Estimated at 15% of gross revenue.
- (12) See Housing Alternative, Note (10).
- (13) See Housing Alternative, Note (11).
- (14) See Housing Alternative, Note (12).
- (15) See Note (2).
- (16) 2,000,000 sq. ft. of office space
 - @ \$26.10/sq. ft. for construction costs
 - + 1.40/sq. ft. for accoustical construction
 - + 1.50/sq. ft. foundation extras
 - @ \$29.00/sq. ft. total construction cost
 - = \$58,000,000
- (17) See Housing Alternative, Note (4).
- (18) See Housing Alternative, Note (5).
- (19) See Housing Alternative, Note (6).
- (20) See Housing Alternative, Note (7).
- (21) See Housing Alternative, Note (8).
- (22) 2,000,000 sq. ft. @ \$1.20/sq. ft./year operating expenses
- (23) See Note 10.
- (24) See Note 11.
- (25) See Housing Alternative, Note 10.
- (26) See Housing Alternative, Note 11.
- (27) See Housing Alternative, Note 12.

HIGH SCHOOL -- OFFICE ALTERNATIVE

INTRODUCTION

This alternative calls for 1,000,000 square feet of office space in medium-rise towers and a 5,000-pupil high school on the northern and central portion of the site. The proposal also includes a marina along the riverfront and playing fields for the school on the southern section of the site.

ANALYSIS AND FINDINGS

Since there are virtually no economics of scale involved in the office structures contemplated, analysis of the office space in this alternative involves only interpopulation of the office analysis for the Recreation - Office - Housing alternative.

Briefly, land cost is estimated at \$1,500,000, and the cost of improvements at \$34,750,000, for a total investment of \$35,750,000. Annual operating expenses are estimated at \$1,200,000.

With an annual rent of \$6.50/ Sq. ft., the developer would earn a competitive return of 14% on \$9,985,000 Equity. At annual rent of \$7.50/ Sq. ft., the developer would earn the very high return of 23% on \$7,258,000 Equity. If the higher rent is marketable, the City could increase its benefit by raising the property tax rate to 20-25%.

APPENDIX

Given an annual rental of \$6.50/ Sq. ft.:

| | |
|--|-------------|
| -- Revenue: | \$6,500,000 |
| -- Property Tax Payment at 15% Rate: | \$ 975,000 |
| -- Equity: | \$9,985,000 |
| -- Equity Ratio: | 27% |
| -- Annual Debt Service (20-year mortgage at 9.5%): | \$2,688,000 |
| -- After Tax Cash in Year 1: | \$1,637,000 |
| -- Percentage of Equity: | 16.5% |
| -- After Tax Cash in Year 15: | \$1,398,000 |
| -- Percentage of Equity: | 14% |

Given an annual rental of \$7.50/ Sq. ft.:

| | |
|--------------------------------------|-------------|
| -- Revenue: | \$7,500,000 |
| -- Property Tax Payment at 15% Rate: | \$1,125,000 |
| -- Equity: | \$7,258,000 |
| -- Equity Ratio: | 20% |
| -- Annual Debt Service: | \$2,946,000 |
| -- After Tax Cash in Year 1: | \$1,939,000 |
| -- Percentage of Equity: | 27% |
| -- After Tax Cash in Year 15: | \$1,674,000 |
| -- Percentage of Equity: | 23% |





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